

**Patent Claims:**

1. A method for monitoring a measurement device, in particular a flow measurement device,  
5 **characterized**  
in that a characteristic variable is calculated from a time series  $s(t)$  of the measurement signal of a measurement device and is compared with previously recorded reference values, with this  
10 being used as the basis to automatically generate a message as to whether the measurement device has been installed correctly or incorrectly.
2. The method as claimed in claim 1,  
15 **characterized**  
in that the reference values relating to the respective measurement device are recorded in advance and are associated appropriately on a device-related basis.  
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3. The method as claimed in claim 2,  
**characterized**  
in that the installation standard determined by comparison is produced automatically as a message,  
25 and is indicated on the measurement device.
4. The method as claimed in claim 2,  
**characterized**  
in that the installation standard determined by  
30 comparison is produced automatically as a message and is transmitted by means of information transmission to a higher-level system where it is indicated.
- 35 5. The method as claimed in one of the preceding claims,  
**characterized**

in that one or more measurement devices which operates or operate in this way is or are connected for information purposes via a bus system to the higher-level system.

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6. The method as claimed in one of the preceding claims,

**characterized**

in that the message is generated automatically as a full text message.

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7. The method as claimed in claim 6,

**characterized**

in that the message is used to automatically generate a corresponding additional full text message with fault rectification instructions.

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8. A measurement device, in particular a flow measurement device,

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**characterized**

in that a characteristic variable can be calculated in a microprocessor from a time series  $s(t)$  of the measurement signal of the measurement device (1) in a calculation unit (2), and can be compared with previously recorded reference values, which are stored in a data memory (4), in which case a message can be automatically generated on this basis, as to whether the measurement device has been installed correctly or incorrectly.

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9. The measurement device as claimed in claim 8,

**characterized**

in that the measurement device (1) has a comparator (3) which compares the time series  $s(t)$  of the measurement signal with the data from the data memory (4).

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10. The measurement device as claimed in claim 8 and 9,  
**characterized**  
in that the measurement device contains a display  
5 (5) on which said messages can be indicated.
11. The measurement device as claimed in one of claims 8 to 10,  
**characterized**  
10 in that the display (5) is a display which is arranged remotely from the actual measurement device.
12. The measurement devices as claimed in one of the  
15 preceding claims 8 to 11,  
**characterized**  
in that the individual elements (1, 2, 3, 4, 5) of the measurement device are accommodated in a compact form in one appliance.  
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13. The measurement device as claimed in one of the preceding claims 8 to 12,  
**characterized**  
in that the individual elements (1, 2, 3, 4, 5) of  
25 the measurement device are at least partially physically separated, but are connected to one another via an information system.
14. A software program product, in which the  
30 functional features as claimed in one or more of claims 1 to 7 are provided by a software program, and the software program can be implemented in the measurement device.